

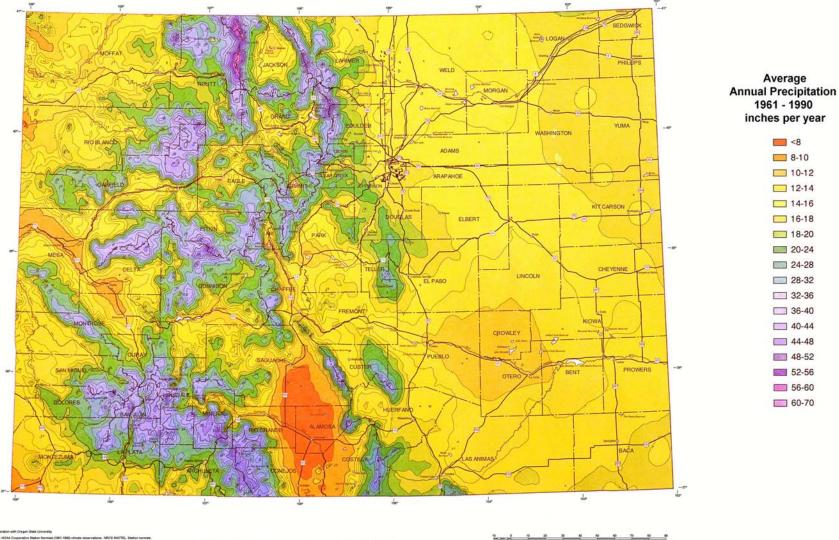
## Northeast Colorado Climate Update

Nolan J. Doesken
Colorado Climate Center
Colorado State University
Presented at County Extension Office, Sedgwick,
Colorado, April 6, 2004

Prepared by Odie Bliss



#### COLORADO ANNUAL PRECIPITATION

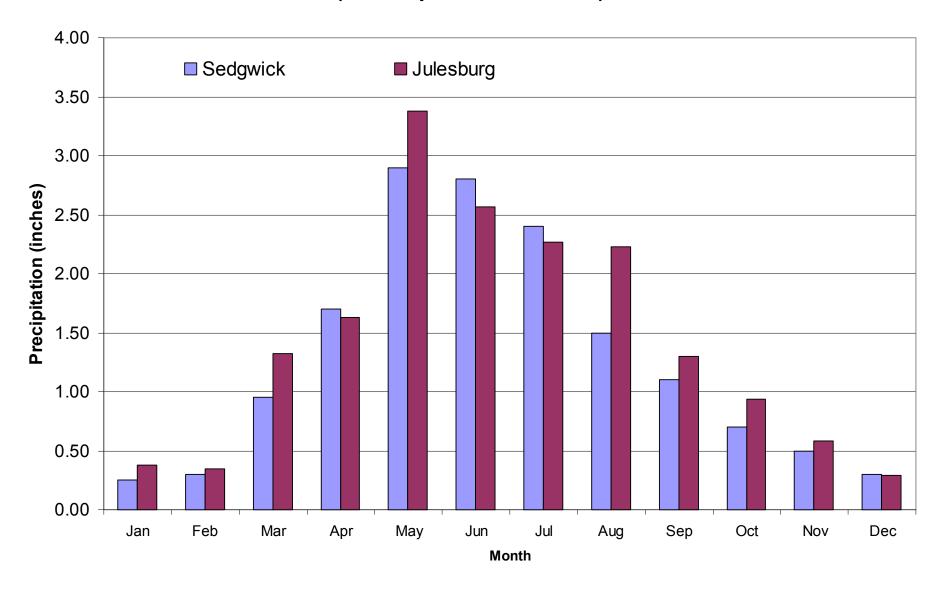


Data Sources NOMA Cooperation States Internal (1961-1980) climate observations. INFCE SHOTES. Station normals, and supplemental data provided by regional and state climatelying and designated reviewers. Digital Elevation Model: 1 The PRICEN DOM: a between the State Control Christian States (STATE) colleges and the Total Control Christian States (STATE) colleges then the STATE CONTROL CONTRO

Estimation Textrology. Giologic attimites were contract from station paint exhaus using the PRSSM model developed at Chapir State University. The modeling gird was appreciately date in latefachingshubs and was recentled to 2ct Am using a Seasolan Star. Climate Debased April 1989. Alberts Expail Area Projection, 187% 8.2275, NAD.27 SCALE 1:1, 185, 000

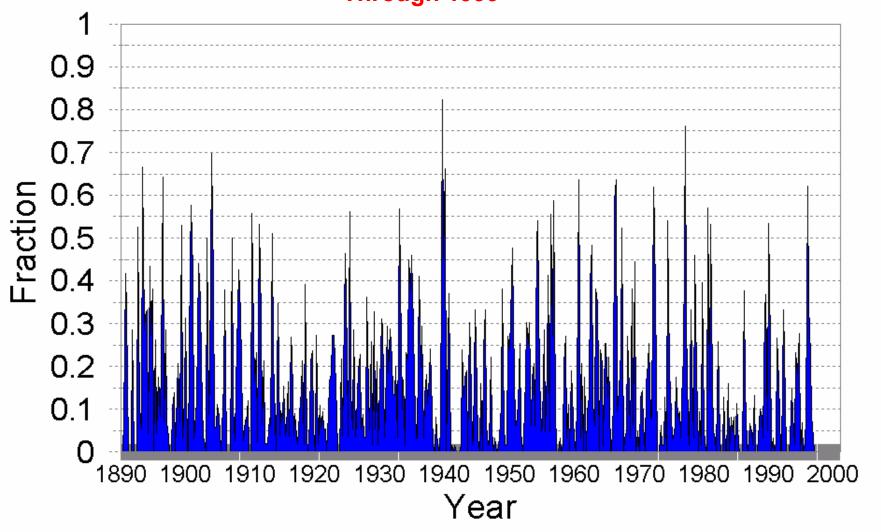
SOLIRCE NOTE
Users are distinued that continues may not exactly match station observed precexpectably in regions with algoritized precipitation gradients and/or steep toping.

### **Average Monthly Precipitation** (for the period 1971-2000)



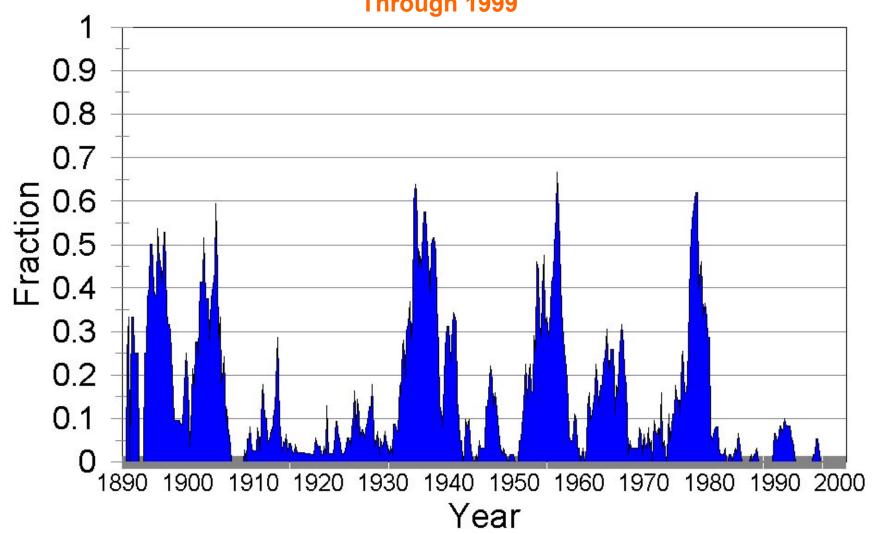
## Fraction of Colorado in Drought Based on 3-month SPI

Through 1999

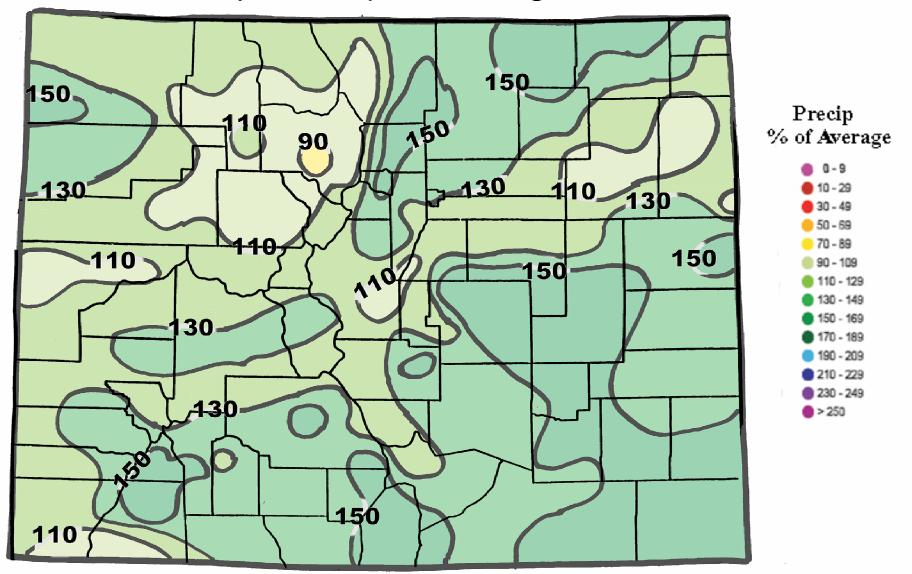


### Fraction of Colorado in Drought Based on 48-month SPI

Through 1999

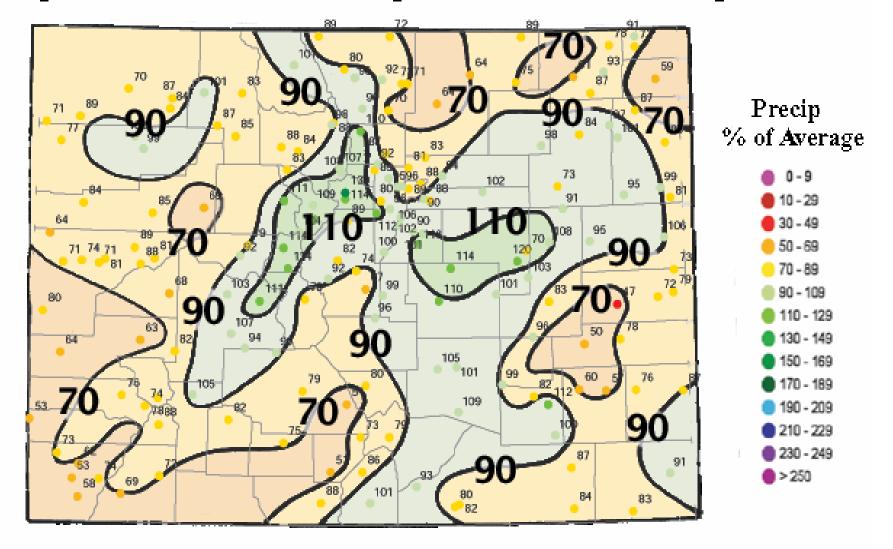


Water Year 1999 (October 1998 - September 1999) Precipitation as a percent of average



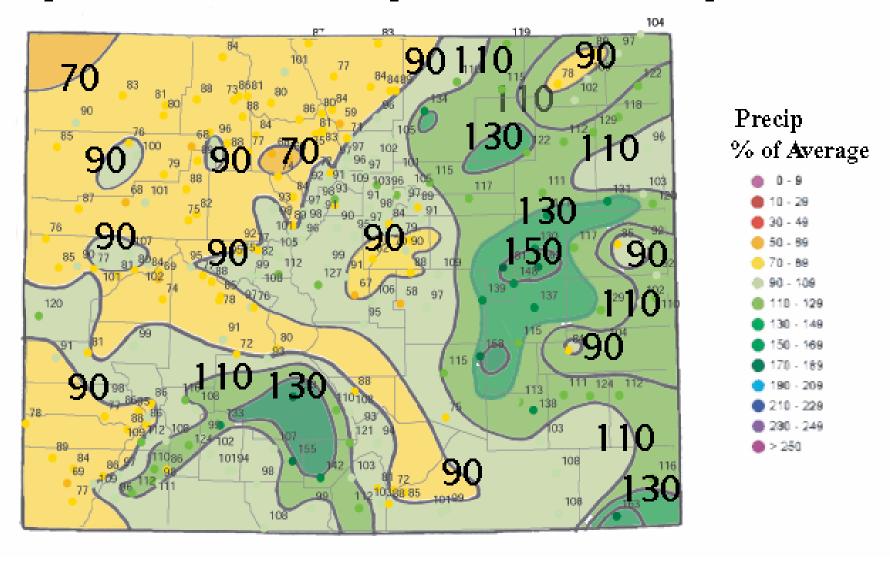
#### Water Year 2000 (Oct. 1999 - Sept. 2000)

#### Precipitation Percent of Average for 1961-1990 Averages



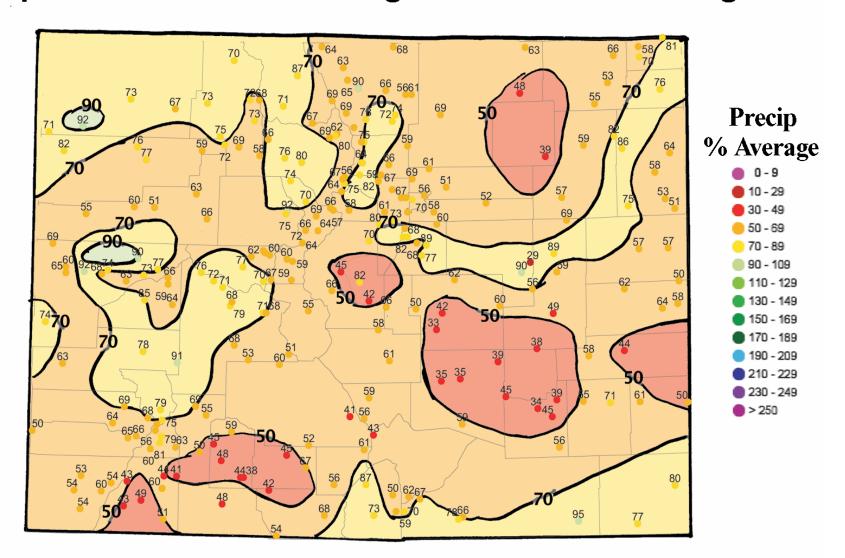
#### Water Year 2001 (Oct. 2000 - Sept. 2001)

#### Precipitation Percent of Average for 1961-1990 Averages



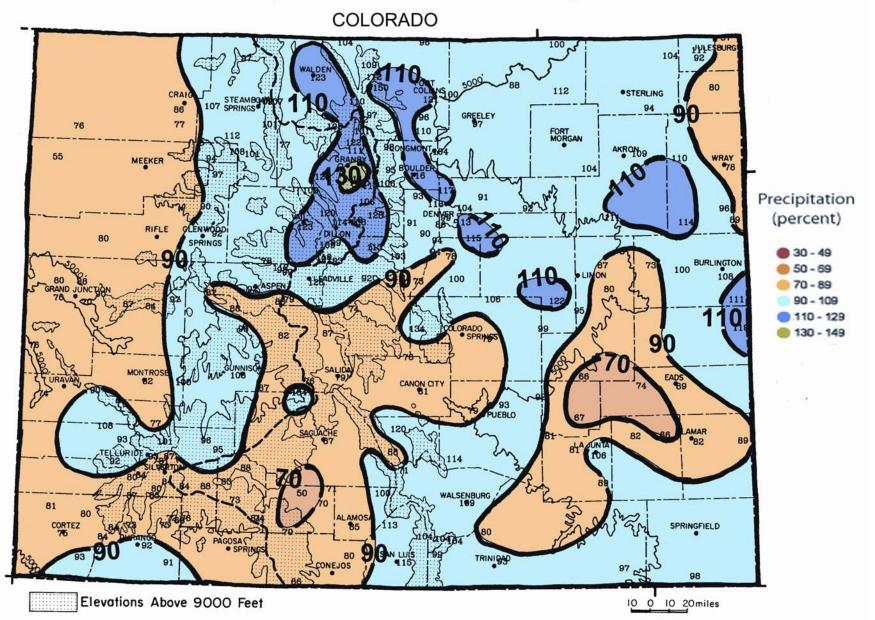
## Water Year 2002 (Oct. 2001 - Sept. 2002)

#### **Precipitation Percent of Average for 1961-1990 Averages**

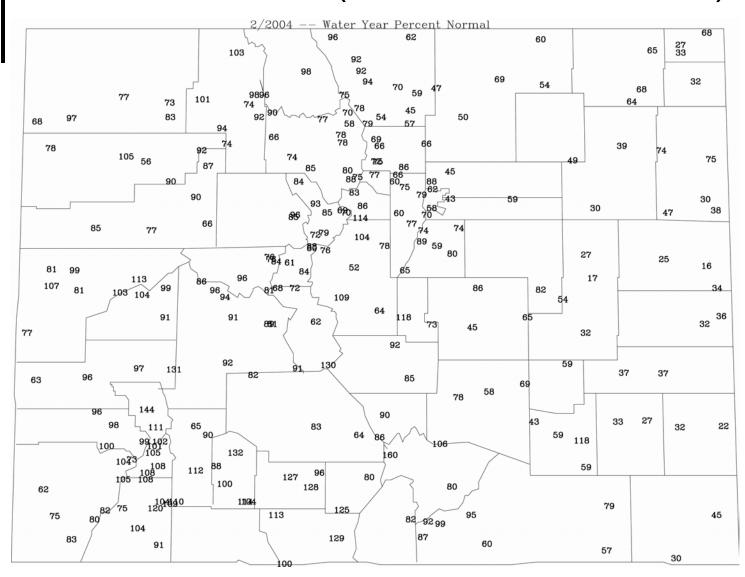


#### Water Year 2003

October 2002 - September 2003 precipitation as a percent of the 1971-2000 average.



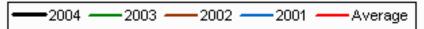
### Water Year 2004 (Oct 2003 - Feb 2004)

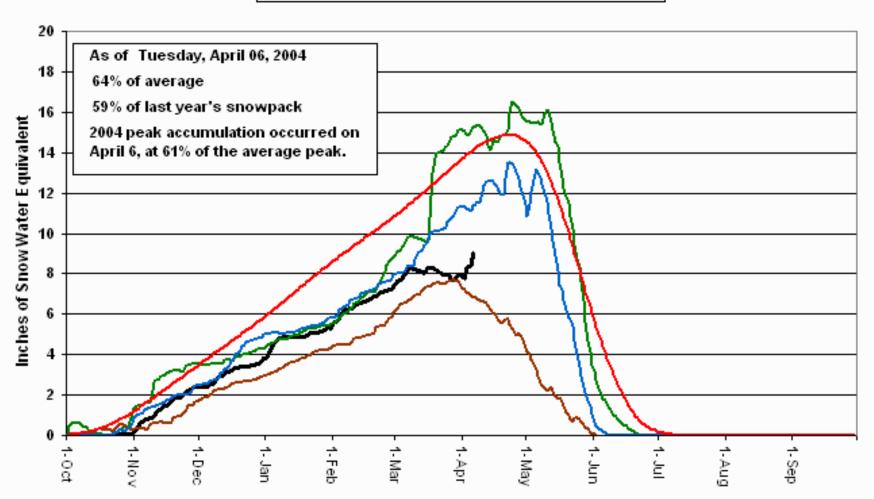




#### South Platte Basin Snowpack

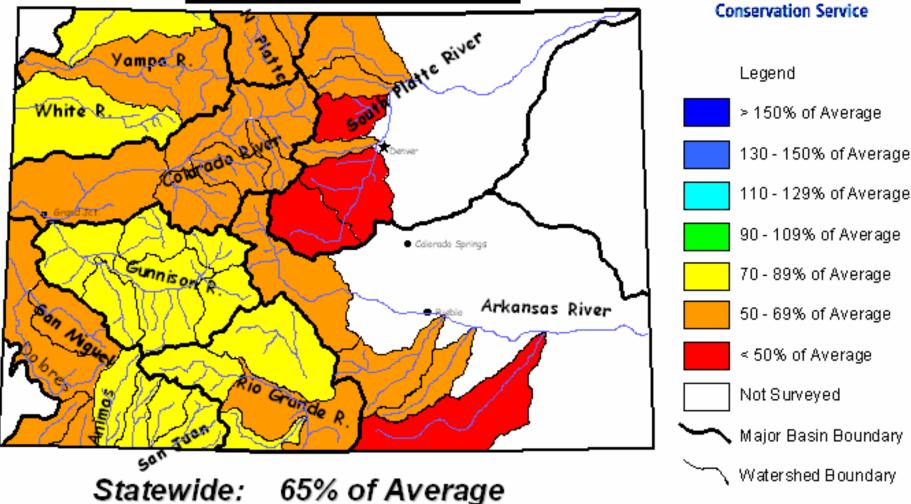
Based on provisional SNOTEL data.





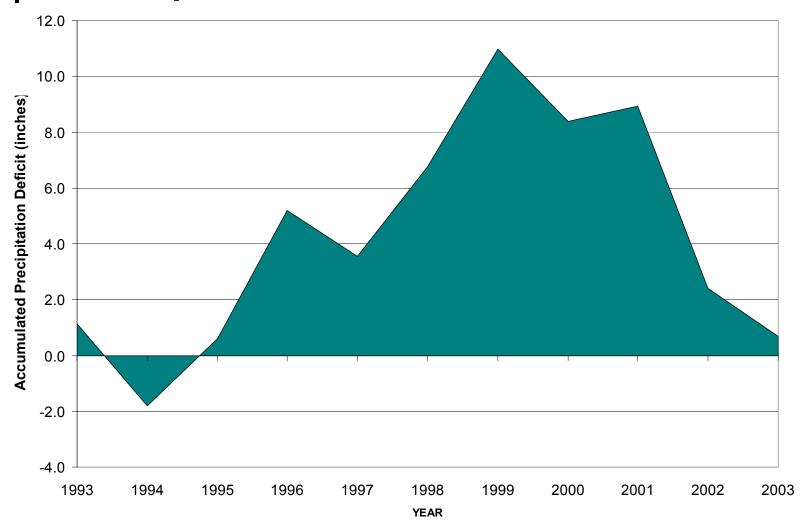
#### Snowpack April 1, 2004



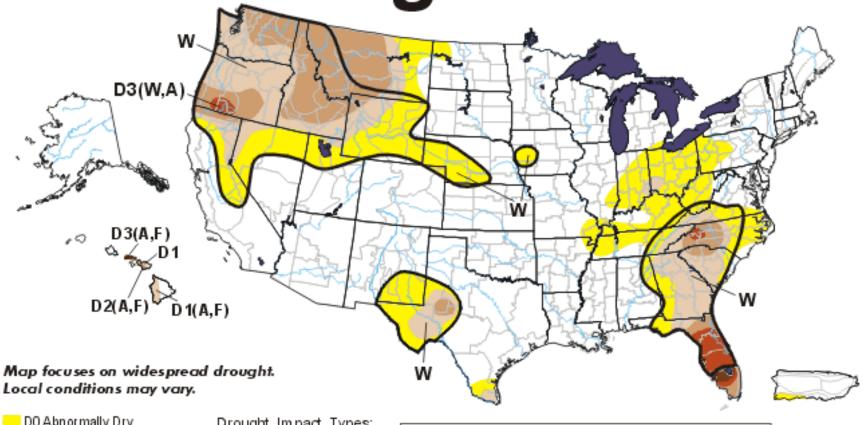


69% of Last Year

## Sedgwick 5S Accumulated Precipitation Deficit



## U.S. Drought Monitor



- DO Abnormally Dry
  - D1 Drought-Moderate
- D2 Drought-Severe
- D3 Drought—Extreme
- D4 Drought—Exceptional
- → Delineates Overlapping Areas

#### Drought Impact Types:

- A = Agriculture
- W = Water (Hydrological)
- F = Fire danger (Wildfires)
- (No type = All 3 impacts)

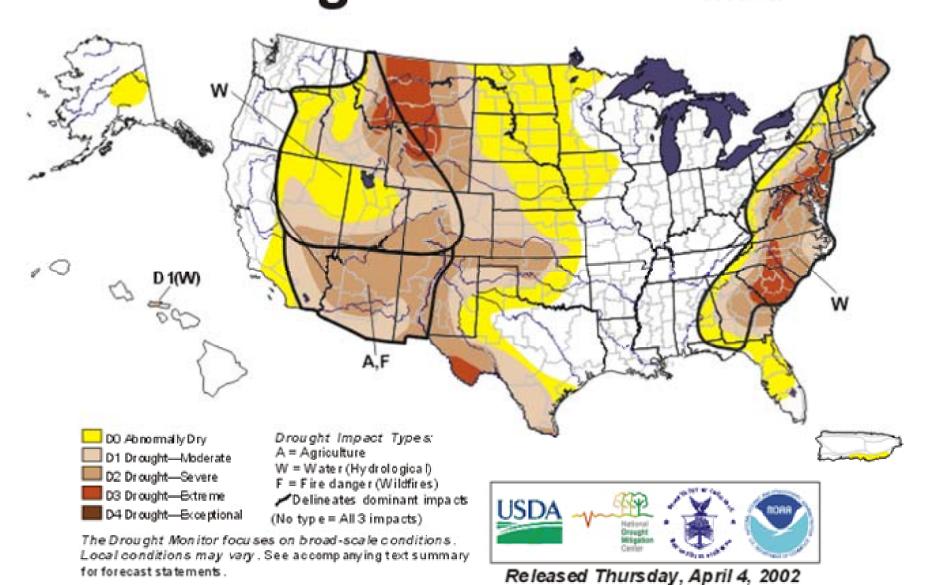


Released Thursday, April 5, 2001

Author: David Miskus

See accompanying texts ummary for forecast statements http://ens.o.unl.edu/monitor/monitor.html

### U.S. Drought Monitor April 2, 2002



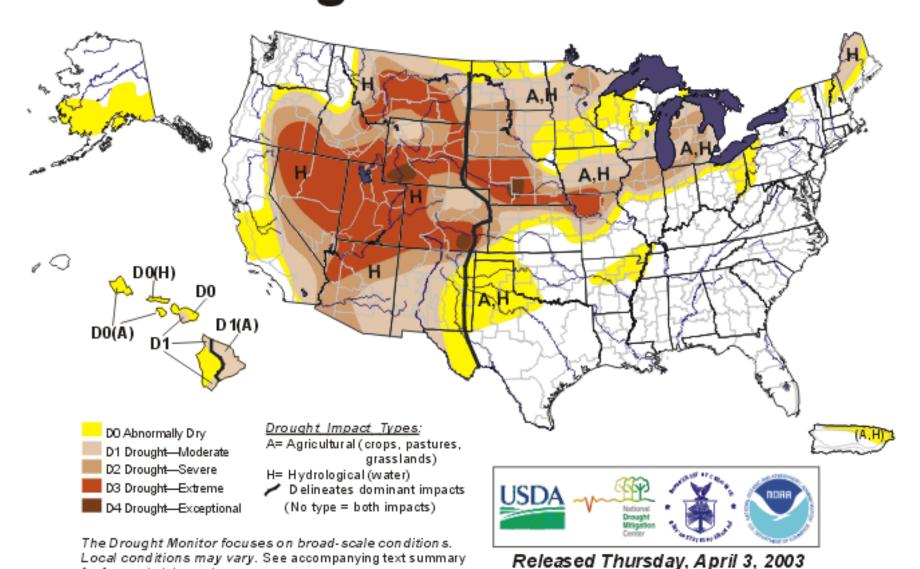
Author: David Miskus, JAWF/CPC.NOAA

http://drought.unl.edu/monitor/monitor.html

### U.S. Drought Monitor

April 1, 2003 Valid 7 a.m. EST

Author: Douglas Le Comte, NOAA/NWS/CPC



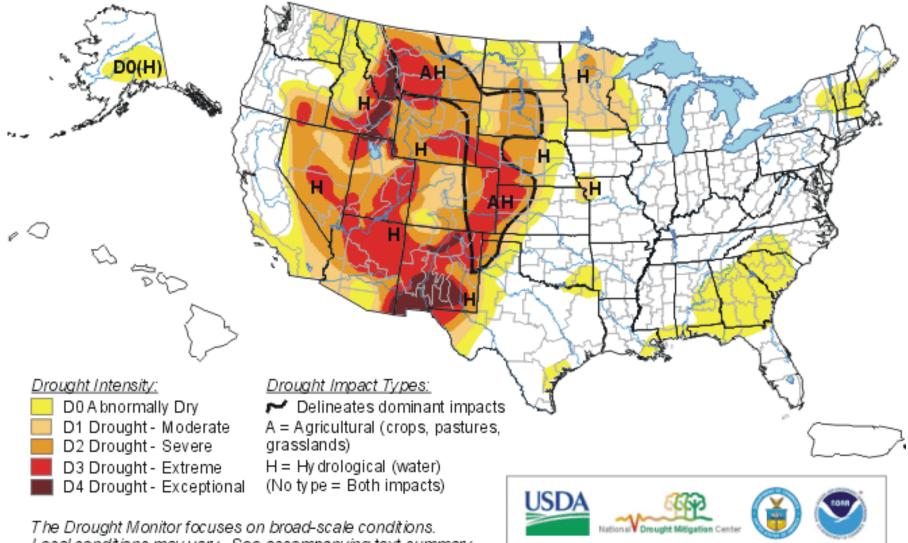
http://drought.unl.edu/dm

for forecast statements.

### U.S. Drought Monitor

March 30, 2004

Valid 7 a.m. EST



The Drought Monitor focuses on broad-scale conditions.

Local conditions may vary. See accompanying text summary for forecast statements.

http://drought.unl.edu/dm

Released Thursday, April 1, 2004
Author: Brad Rippey, U.S. Department of Agriculture



impacts ease

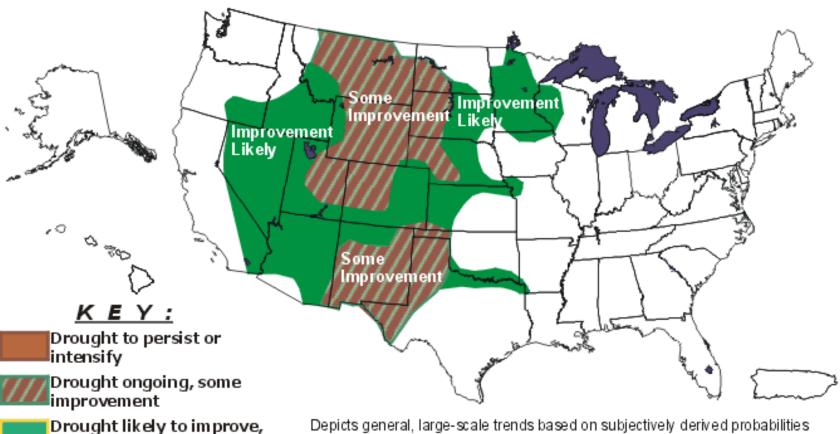
likely

Drought development

#### **U. S. Seasonal Drought Outlook**



Through May 2004 Released February 19, 2004

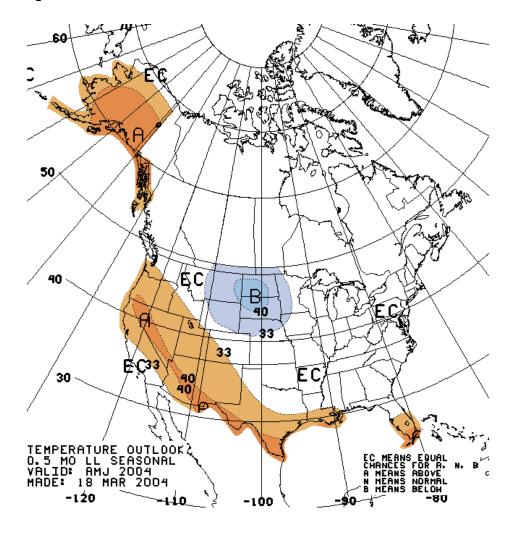


Depicts general, large-scale trends based on subjectively derived probabilities guided by numerous indicators, including short and long-range statistical and dynamical forecasts. Short-term events-- such as individual storms-- cannot be accurately forecast more than a few days in advance, so use caution if using this outlook for applications-- such as crops-- that can be affected by such events. "Ongoing" drought areas are schematically approximated from the Drought Monitor (D1 to D4). For weekly drought updates, see the latest Drought Monitor map and text.

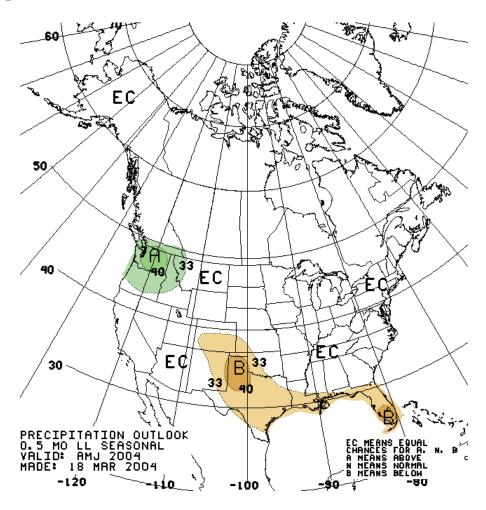
## • • What Comes Next?



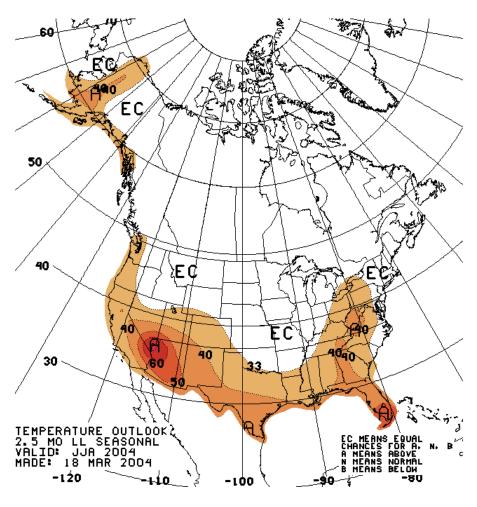
### Temperature April - June 2004



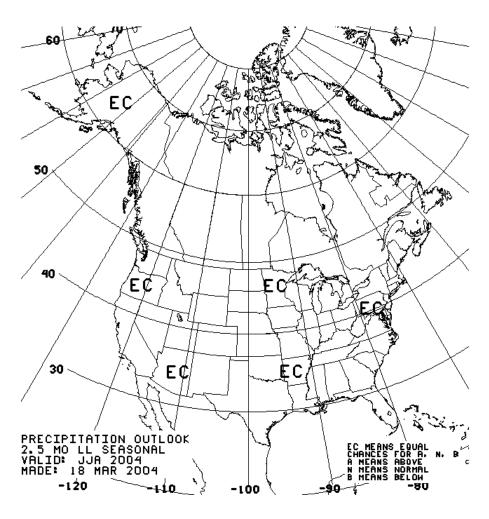
### Precipitation April - June 2004



## Temperature June - Aug 2004

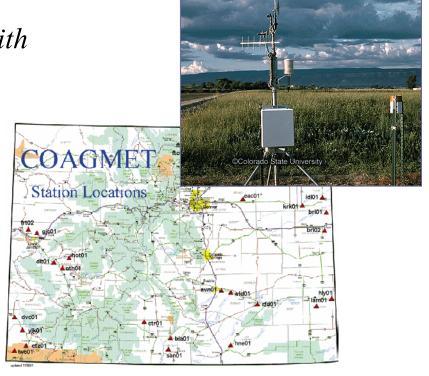


## Precipitation June – Aug 2004



# CoAgMet Weather Data for Agriculture

- Automated weather stations with daily and hourly readings of:
  - Temperature
  - Humidity
  - Wind
  - Precipitation
  - Solar energy
  - Evapotranspiration



http://www.coagmet.com

## CoCo RaHS Community Collaborative

Rain and Hail Study

YOU CAN HELP!



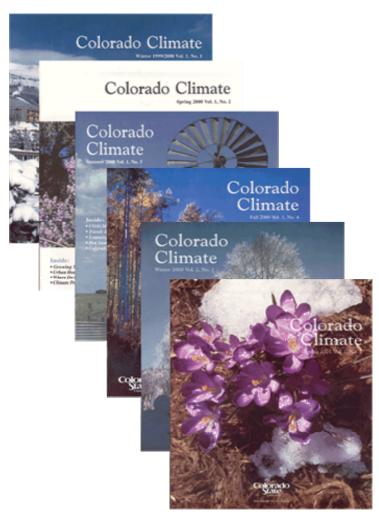


http://www.cocorahs.org



## Colorado Climate Magazine

- Good bedtime reading about the climate of Colorado -- recent and historic
- \$15/year subscription pays printing and mailing costs



# Colorado Climate Center Colorado State University

• Data and Power Point Presentations available for downloading

http://ccc.atmos.colostate.edu

click on "Drought" then click on "Presentations"

